

Contents

Volume 190 (1987)

Research Letters

Nitrous acid induced damage in T7 DNA and phage (MTRL 0947)	
by L.M. Searce and W.E. Masker (U.S.A.)	1
Tricyclic drugs: potent mutagenicity of traces of a nitroarene formed in the reaction of opipramol with nitrite (MTRL 0939)	
by H.R. Glatt, J.W. Faigle and F. Oesch (Federal Republic of Germany and Switzerland)	7
Chloral hydrate, methylmercury hydroxide and ethidium bromide affect chromosomal segregation during meiosis of <i>Saccharomyces cerevisiae</i> (MTRL 0938)	
by S. Sora and M.L. Agostini Carbone (Italy)	13
Synaptonemal complex damage as a measure of chemical mutagen effects on mammalian germ cells (MTRL 0931)	
by J.W. Allen, G.K. DeWeese, J.B. Gibson, P.A. Poorman and M.J. Moses (U.S.A.)	19
Killing of preimplantation mouse embryos by main ingredients of cleansers AS and LAS (MTRL 0935)	
by T. Nomura, S. Hata, K. Shibata and T. Kusafuka (Japan)	25
A benzo[a]pyrene metabolite-DNA adduct occurring in the activating cell but not in exogenous DNA (MTRL 0942)	
by G. Turchi, H. R. Glatt, G. Doerjers and F. Oesch (Federal Republic of Germany and Italy)	31
Interactions of nitrilotriacetic acid (NTA) with Cr(VI) compounds in the induction of gene mutations in cultured mammalian cells (MTRL 0941)	
by L. Celotti, D. Furlan, L. Seccati and A.G. Levis (Italy)	35
Induction of micronuclei by vinyl acetate in mouse bone marrow cells and cultured human lymphocytes (MTRL 0933)	
by J. Mäki-Paakkanen and H. Norppa (Finland)	41
Methylglyoxal-induced mutation to 6-thioguanine resistance in V79 cells (MTRL 0940)	
by E. Cajelli, R. Canonero, A. Martelli and G. Brambilla (Italy)	47
Measurement of micronuclei by cytokinesis-block method in cultured Chinese hamster cells: comparison with types and rates of chromosome aberrations (MTRL 0945)	
by A. Wakata and M.S. Sasaki (Japan)	51
Interindividual human variation in cisplatin sensitivity, predictable in an in vitro assay? (MTRL 0937)	
by A.M.J. Fichtinger-Schepman, A.T. van Oosterom, P.H.M. Lohman and F. Berends (The Netherlands)	59
Chromosome damage induced in human lymphocytes by 5-methoxypsoralen and 8-methoxypsoralen plus UV-A (MTRL 0934)	
by G. Abel (Federal Republic of Germany)	63
The induction of aneuploidy by nitrogen mustard in a human lymphoblastoid cell line (MTRL 0932)	
by C.L. Crespi, G.M. Seixas and B.W. Penman (U.S.A.)	69
Inducible DNA polymerase I synthesis in a UV hyper-resistant mutant of <i>Escherichia coli</i> (MTRL 0936)	
by S.I. Ahmad and C.A. van Sluis (Great Britain and The Netherlands)	77
Evidence that <i>N</i> -methyl- <i>N'</i> -nitro- <i>N</i> -nitrosoguanidine induces adaptive response in <i>Bacillus thuringiensis</i> (MTRL 0946)	
by P. Boutibonnes and Y. Auffray (France)	83
5-Amino-4-imidazolecarboxamide is a mutagen in <i>E. coli</i> (MTRL 0949)	
by V. Murray (U.S.A.)	89
Absence of mutagenic activity of benorylate, paracetamol and aspirin in the <i>Salmonella</i> /mammalian microsome test (MTRL 0953)	
by M.L. Jasiewicz and J.C. Richardson (Great Britain)	95
Selenium inhibition of benzo[a]pyrene, 3-methylcholanthrene, and 3-methylcholanthrylene mutagenicity in <i>Salmonella typhimurium</i> strains TA98 and TA100 (MTRL 0959)	
by P. Prasanna, M. Jacobs and S.K. Yang (U.S.A.)	101
Enhancement of the mutagenicity of 2-acetylaminofluorene by flavonoids and the structural requirements (MTRL 0961)	
by S. Ogawa, T. Hirayama, Y. Sumida, M. Tokuda, K. Hirai and S. Fukui (Japan)	107

Contents

Volume 190 (1987)

Research Letters

Nitrous acid induced damage in T7 DNA and phage (MTRL 0947)	
by L.M. Searce and W.E. Masker (U.S.A.)	1
Tricyclic drugs: potent mutagenicity of traces of a nitroarene formed in the reaction of opipramol with nitrite (MTRL 0939)	
by H.R. Glatt, J.W. Faigle and F. Oesch (Federal Republic of Germany and Switzerland)	7
Chloral hydrate, methylmercury hydroxide and ethidium bromide affect chromosomal segregation during meiosis of <i>Saccharomyces cerevisiae</i> (MTRL 0938)	
by S. Sora and M.L. Agostini Carbone (Italy)	13
Synaptonemal complex damage as a measure of chemical mutagen effects on mammalian germ cells (MTRL 0931)	
by J.W. Allen, G.K. DeWeese, J.B. Gibson, P.A. Poorman and M.J. Moses (U.S.A.)	19
Killing of preimplantation mouse embryos by main ingredients of cleansers AS and LAS (MTRL 0935)	
by T. Nomura, S. Hata, K. Shibata and T. Kusafuka (Japan)	25
A benzo[a]pyrene metabolite-DNA adduct occurring in the activating cell but not in exogenous DNA (MTRL 0942)	
by G. Turchi, H. R. Glatt, G. Doerjers and F. Oesch (Federal Republic of Germany and Italy)	31
Interactions of nitrilotriacetic acid (NTA) with Cr(VI) compounds in the induction of gene mutations in cultured mammalian cells (MTRL 0941)	
by L. Celotti, D. Furlan, L. Seccati and A.G. Levis (Italy)	35
Induction of micronuclei by vinyl acetate in mouse bone marrow cells and cultured human lymphocytes (MTRL 0933)	
by J. Mäki-Paakkanen and H. Norppa (Finland)	41
Methylglyoxal-induced mutation to 6-thioguanine resistance in V79 cells (MTRL 0940)	
by E. Cajelli, R. Canonero, A. Martelli and G. Brambilla (Italy)	47
Measurement of micronuclei by cytokinesis-block method in cultured Chinese hamster cells: comparison with types and rates of chromosome aberrations (MTRL 0945)	
by A. Wakata and M.S. Sasaki (Japan)	51
Interindividual human variation in cisplatin sensitivity, predictable in an in vitro assay? (MTRL 0937)	
by A.M.J. Fichtinger-Schepman, A.T. van Oosterom, P.H.M. Lohman and F. Berends (The Netherlands)	59
Chromosome damage induced in human lymphocytes by 5-methoxypsoralen and 8-methoxypsoralen plus UV-A (MTRL 0934)	
by G. Abel (Federal Republic of Germany)	63
The induction of aneuploidy by nitrogen mustard in a human lymphoblastoid cell line (MTRL 0932)	
by C.L. Crespi, G.M. Seixas and B.W. Penman (U.S.A.)	69
Inducible DNA polymerase I synthesis in a UV hyper-resistant mutant of <i>Escherichia coli</i> (MTRL 0936)	
by S.I. Ahmad and C.A. van Sluis (Great Britain and The Netherlands)	77
Evidence that <i>N</i> -methyl- <i>N'</i> -nitro- <i>N</i> -nitrosoguanidine induces adaptive response in <i>Bacillus thuringiensis</i> (MTRL 0946)	
by P. Boutibonnes and Y. Auffray (France)	83
5-Amino-4-imidazolecarboxamide is a mutagen in <i>E. coli</i> (MTRL 0949)	
by V. Murray (U.S.A.)	89
Absence of mutagenic activity of benorylate, paracetamol and aspirin in the <i>Salmonella</i> /mammalian microsome test (MTRL 0953)	
by M.L. Jasiewicz and J.C. Richardson (Great Britain)	95
Selenium inhibition of benzo[a]pyrene, 3-methylcholanthrene, and 3-methylcholanthrylene mutagenicity in <i>Salmonella typhimurium</i> strains TA98 and TA100 (MTRL 0959)	
by P. Prasanna, M. Jacobs and S.K. Yang (U.S.A.)	101
Enhancement of the mutagenicity of 2-acetylaminofluorene by flavonoids and the structural requirements (MTRL 0961)	
by S. Ogawa, T. Hirayama, Y. Sumida, M. Tokuda, K. Hirai and S. Fukui (Japan)	107

2,7-Diamino-3,8-dimethylphenazine as the major mutagenic product from the reaction of 2,4-diaminotoluene with hydrogen peroxide (MTRL 0964)	
by T. Watanabe, M. Ono, T. Hirayama and S. Fukui (Japan)	113
Specific targets of alkylating agents in nuclear proteins of cultured hepatocytes (MTRL 0954)	
by L.C. Boffa, C. Bolognesi and M.R. Mariani (Italy)	119
Effects of sodium azide on replicative and repair DNA synthesis in barley embryos (MTRL 0950)	
by J. Velemínský and K.J. Angelis (Czechoslovakia)	125
Clastogenic adaptation triggered by S-phase-independent clastogens in <i>Vicia faba</i> (MTRL 0955)	
by K. Heindorff, R. Rieger, A. Michaelis and S. Takehisa (G.D.R. and Japan)	131
Chromosome flexion: Potential for assessing the state of spindle assembly (MTRL 0951)	
by A.T. Correll and J.H. Ford (Australia)	137
Influence of post X-irradiation treatment with Neurospora endonuclease on the symmetry of chromatid interchanges in CHO cells in vitro (MTRL 0965)	
by P.P.W. van Buul, K. Hanson, H.J. Goudzwaard and A.T. Natarajan (The Netherlands)	145
Production of sister-chromatid exchange by irradiation during the G ₁ stage: The probable role of 5-bromodeoxyuridine (MTRL 0944)	
by N.V. Luchnik, N.A. Porjadkova, T.V. Kondrashova and A.S. Seilanov (U.S.S.R.)	149
Clastogenic evaluation of cathinone and amphetamine in somatic cells of mice (MTRL 0952)	
by M. Tariq, N.S. Parmar, S. Qureshi, F.S. El-Feraly and I.A. Al-Meshal (Saudi Arabia)	153
Genotoxicity of a variety of nitroarenes and other nitro compounds in DNA-repair tests with rat and mouse hepatocytes (MTRL 0963)	
by H. Mori, S. Sugie, N. Yoshimi, T. Kinouchi and Y. Ohnishi (Japan)	159
Mutagenicity of 4-hydroxynonenal in V79 Chinese hamster cells (MTRL 0943)	
by E. Cajelli, A. Ferraris and G. Brambilla (Italy)	169
Deficiencies in the covalent binding index (CBI) for expressing in vivo binding to DNA with respect to predicting a chemical carcinogenicity	
A proposal for a target-organ binding index (MTRL 0975)	
by R.H. Dashwood and R.D. Combes (Great Britain)	173
Mutagenicity of some substituted 1-phenyl-3,3-dimethyltriazenes	
I. The Salmonella/mammalian microsome assay and repair test (MTRL 0957)	
by M. Černá, P. Lepší, P. Rössner and H. Pohlová (Czechoslovakia)	177
Mutagenicity of some substituted 1-phenyl-3,3-dimethyltriazenes	
II. Chromosomal aberrations in human peripheral lymphocytes in vitro (MTRL 0956)	
by P. Rössner, M. Černá, P. Lepší and H. H. Pohlová (Czechoslovakia)	183
Anaerobic metabolism of 2-amino-3-methyl-3H-imidazo[4,5-f]quinoline (IQ) by human fecal flora (MTRL 0969)	
by M. Bashir, D.G.I. Kingston, R.J. Carman, R.L. van Tassel and T.D. Wilkins (U.S.A.)	187
Lack of mutagenic activity of bile acids in bacterial fluctuation tests (MTRL 0974)	
by S. Venitt, D. Bosworth and D.F. Easton (Great Britain)	191
Cytogenic effects of penicillamine (MTRL 0958)	
by G. Speit and S. Haupter (F.R.G.)	197
Induction of cytogenetic damage by modified steroidal derivatives of <i>p</i> -bis(2-chloroethyl)aminophenylacetic acid in human lymphocytes (MTRL 0960)	
by D. Mourelatos, C. Petrou, L. Boutis, A. Papageorgiou, P. Catsoulacos and J. Dozi-Vassiliades (Greece)	205
Sister-chromatid exchange and cell proliferation in cultured lymphocytes of passively and actively smoking restaurant personnel (MTRL 0962)	
by K. Husgafvel-Pursiainen (Finland)	211
Analysis of cytogenetic effect in human lymphocytes induced by metabolically activated 2-nitropropane (MTRL 0966)	
by M. Bauchinger, U. Kulka and E. Schmid (G.F.R.)	217
Effects of vanillin on sister-chromatid exchanges and chromosome aberrations in human lymphocytes (MTRL 0970)	
by T. Jansson and L. Zech (Sweden)	221
Effects of anticoagulants upon sister-chromatid exchanges, cell-cycle kinetics, and mitotic index in human peripheral lymphocytes (MTRL 0973)	
by J.D. Tucker and M.L. Christensen (U.S.A.)	225
Absence of mutagenic and antimutagenic activities of fluoride in Ames Salmonella assays (MTRL 0948)	
by Y. Li, A.J. Dunipace and G.K. Stookey (U.S.A.)	229
The effect of temperature or anoxia on <i>Escherichia coli</i> killing induced by hydrogen peroxide (MTRL 0968)	
by G. Brandi, P. Sestili, M.A. Pedrini, L. Salvaggio, F. Cattabeni and O. Cantoni (Italy)	237

Mutagenicity-enhancing effect of quercetin on the active metabolites of 2-acetylaminofluorene with mammalian metabolic activation systems (MTRL 0971)	
by S. Ogawa, T. Hirayama, M. Tokuda, K. Hirai and S. Fukui (Japan)	241
Binary mixtures containing isomers of nitrobenzo[a]pyrene induce greater-than-additive mutational responses in <i>Salmonella typhimurium</i>	
I. Analysis by the total concentration-proportional mixture model (MTRL 0972)	
by B.S. Hass, J.J. Chen, M.W. Chou, P.P. Fu and R.H. Heflich (U.S.A.)	247
A molecular analysis of the RK mutatest (MTRL 0977)	
by A.J.E. Gordon and B.W. Glickman (Canada)	253
The mutagenicity of 2-nitrofluoranthene and its in vitro hepatic metabolites (MTRL 0986)	
by B. Zielinska, W.P. Harger, J. Arey, A.M. Winer, R.A. Haas and C.V. Hanson (U.S.A.)	259
O ⁶ -Methylguanine specifically induces AT → GC transition mutations (MTRL 0990)	
by V. Murray (U.S.A.)	267
Relationship between sister-chromatid exchanges and heterochromatin or DNA replication in chromosomes of <i>Crepis capillaris</i> (MTRL 0967)	
by B. Dimitrov (Bulgaria)	271
Chloramine-induced sister-chromatid exchanges (MTRL 0989)	
by A.B. Weitberg (U.S.A.)	277
Evaluation of methods for the estimation of mutation rates in cultured mammalian cell populations (MTRL 0976)	
by I. Li and E.H.Y. Chu (Taiwan and U.S.A.)	281
Host-mediated transformation: metronidazole (MTRL 0991)	
by V.F. Garry and R.L. Nelson (U.S.A.)	289
Erratum	297
Contents, Vol. 190 (1987)	298

